第91回　生体制御学セミナー

Tenuous Tethers: Anchoring telomeres to the nuclear envelope during meiosis in yeast and zebrafish

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Date: 16:30~17:30, September 22nd, Monday, 2025
Venue: Lecture Room 8, 2nd floor, Faculty of Science, Building 2

Abstract

During meiosis, telomeres cluster at the nuclear envelope in a distinctive “bouquet” arrangement that promotes homolog pairing and synapsis. This organization depends on a physical bridge—the linker of nucleoskeleton and cytoskeleton (LINC) complex—that spans the nuclear envelope to connect telomeres inside the nucleus to the cytoskeleton outside. Using budding yeast and zebrafish, my lab investigates the protein components that tether telomeres to the LINC complex as well as functional interactions between LINC- complex components and the nuclear pore complex. By comparing these mechanisms across two evolutionarily distant systems, we are uncovering conserved strategies for anchoring chromosomes at the nuclear periphery and how these tethering events shape nuclear organization and influence meiotic chromosome dynamics.

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